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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,943	10/17/2005	Anthony Denis McCormack	3700.P0397US	8306

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FLYNN THIEL BOUTELL & TANIS, P.C.
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KALAMAZOO, MI 49008-1631

EXAMINER

NGUYEN, PHU HOANG

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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03/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/536,943

Applicant(s)

MCCORMACK, ANTHONY DENIS

Examiner

PHU H. NGUYEN

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Acknowledgement is made of Amendment received 1/2/2009. Claims 1-2, 9-11 are currently amended. Claims 3-8, 12-14 are previously presented. Claims 15-16 are newly added.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bereman (WO 0237990) in view of Garrido et al. (J.Chem.Soc., Faraday Trans. 1, 1987).

Regarding claims 1-3, 5-10 and 15, Bereman discloses a tobacco smoke filter containing activated carbon where the smoke compounds in the organic volatile and semivolatile phases diffuse through the carbon particles, move over the surface and the move into the activated carbon pores compelled by a phenomenon known as Van der Waal's forces. Activated carbon can have micropore (pores of less than 2 nm in diameter) mesoporous (pores 2 to 50 nanometers in diameter) (overlapping with the range of claim 2) (page 21, line 15 to page 22, line 7). Also, it is noticed that the claimed "at most" in the instant claim 1 is inclusive of zero. However, Bereman does not disclose the volume of these pores. Garrido discloses burn-off to control the pore volume (fig. 2); Garrido further disclosed the volumes measured by adsorption of nitrogen in carbons

can be explained in terms of corresponding DR plots (page 1085). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the burn off method disclosed by Garrido to manipulate the pore volume (to any desired range of volumes as fig. 2 of page 1085) of the activated carbon pores of Bereman to achieve a desired adsorption property.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bereman (WO 0237990) in view of Garrido et al. (J.Chem.Soc., Faraday Trans. 1, 1987) as applied to claim 1 above and further in view of Baur et al. (U.S Patent No. 3108142). Even though the combination of Bereman and Garrido does not disclose the surface property of macropores activated carbon, this property is well known in the art as evidenced by Reppe. Baur discloses macroporous activated carbon has surface area of about 1 to 8 m²/g overlapping with the claimed (5 m²/g).

Claims 11-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bereman (WO 0237990) in view of Garrido et al. (J.Chem.Soc., Faraday Trans. 1, 1987) as applied to claim 1 above and further in view of Hershe et al. (U.S Patent No. 5829449). Bereman discloses using a filter containing activated carbon on a cigarette to reduce the content of certain harmful or carcinogenic substances. However the combination of Bereman and Garrido does not disclose putting volatile flavourant in a filter cigarette. Furthermore, Hersh discloses cigarette filter comprising menthol and other smoke flavoring agents wherein the activated carbon has pore modifying agent and part of the activated carbon is available for adsorption of the menthol or other flavor (column 8, lines 25-31). Therefore, it is well known in the art to put menthol flavor in the

filter as evidenced by Hersh (column 12, lines 9-13). Therefore, it would have been obvious to add a menthol flavor to the filter of Bereman to give user the flavor.

Response to Arguments

Applicant's arguments filed 1/2/2009 have been fully considered but they are not persuasive.

Applicant essentially argues that the activated carbon of Bereman only serves as a support and that the activated carbon of Garrido is not used for filtration of tobacco smoke; therefore the combination have no disclosure or suggestion with the claimed invention. However, Bereman discloses activated carbon is the most widely preferred granular adsorbent in cigarette filter (column 2, lines 30-34) and Garrido discloses the volume of the pores of activated carbon can be manipulated to achieve a desired adsorption property as discussed above for claims 1-3. Therefore, the combination of Bereman and Garrido discloses activated carbon being used for the filtration of tobacco smoke and that the pore volumes of the activated carbon can be manipulated by the burn off method of Garrido to achieve a desired adsorption property. Also, it is noticed that the claimed "at most" in the instant claim 1 is inclusive of zero, so micropores do not have to be present.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Bereman does not disclose the volume of these pores; Garrido discloses burn-off to control the pore volume (fig. 2); Garrido further disclosed the volumes measured by adsorption of nitrogen in carbons can be explained in terms of corresponding DR plots (page 1085). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the burn off method disclosed by Garrido to manipulate the pore volume (to any desired range of volume) of the activated carbon pores of Bereman to achieve a desired adsorption property.

Applicant further argues that there is no teaching to combine the Baur et al. reference with the primary reference. However, as discussed above for claim 4, the Baur reference is evidence that it is well known for macroporous activated carbon to have surface area of about 1 to 8 m²/g.

Applicant also argues that there is no teaching to combine the Hershe et al. reference with the primary reference. As discussed above, It is well known in the art to put menthol flavor in the filter as evidenced by Hersh (column 12, lines 9-13). Therefore, it would have been obvious to add a menthol flavor to the filter of Bereman to give user the flavor. Furthermore, Hersh discloses cigarette filter comprising menthol and other smoke flavoring agents wherein the activated carbon has pore modifying agent and part of the activated carbon is available for adsorption of the menthol or other flavor (column 8, lines 25-31).

Applicant argues that the examples and table in the specification from pages 5-9 distinguishes the invention from the cited prior arts by assuming that the combination of the prior arts is only closely related to comparative example A. However, as discussed above for claims 1 and 16, the cited prior arts teaches the use of activated carbon and flavor in a cigarette filter and teaches modifying pores (overlapping with the claimed ranges) of the activated carbon for a desired property. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In *re* Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Furthermore, the Table in the specification is not commensurate in scope with the claimed invention, since it does not show superior results for several levels, including when the micropores are at a level of zero, as is now being claimed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHU H. NGUYEN whose telephone number is (571)272-5931. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

P.N 3/4/2009

***/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791***